

# KENWOOD

**KRC-S300**

**KRC-S200**

**KRC-S100**

CASSETTE RECEIVER

**INSTRUCTION MANUAL**

AMPLI-TUNER-LECTEUR DE CASSETTE

**MODE D'EMPLOI**

RADIO CASSETE

**MANUAL DE INSTRUCCIONES**

RADIO CASSETTE

**MANUAL DE INSTRUÇÕES**

KENWOOD CORPORATION

**Take the time to read through this instruction manual.**

**Familiarity with installation and operation procedures will help you obtain the best performance from your new cassette-receiver.**

**For your records**

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your KENWOOD dealer for information or service on the product.  
Model KRC-S300/S200/S100    Serial number

## Contents

### **Before use**

Warning .....	3
Safety precautions .....	4
Buttons and Display .....	6

### **Basic operations**

Power .....	8
Switching Modes .....	8
Volume .....	8
Attenuator .....	8
Loudness .....	8

### **Tuner features**

Tuning .....	9
Station Preset Memory .....	9
Auto Memory Entry .....	9
Clean Reception System Circuit (CRSC) .....	10

### **Cassette player features**

Playing Cassette Tapes .....	10
Fast Forwarding and Rewinding Cassette Tapes .....	11
Tuner Call .....	11

### **Other features**

Audio Control Setting .....	12
Clock Display .....	12
Adjusting Time .....	12

### **Installation**

Accessories .....	13
Installation Procedure .....	13
Connecting Wires to Terminals .....	14
Installation .....	15

### **Troubleshooting Guide** .....

17

### **Specifications** .....

18

## ▲ Warning



### Dear Customer:

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion — and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

#### **To establish a safe level:**

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

#### **Once you have established a comfortable sound level:**

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

### FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

## We Want You Listening For A Lifetime

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

### Decible

#### Level

#### Example

30	Quiet library, soft whispers
40	Living room, refrigerator, bedroom away from traffic
50	Light traffic, normal conversation, quiet office
60	Air conditioner at 20 feet, sewing machine
70	Vacuum cleaner, hair dryer, noisy restaurant
80	Average city traffic, garbage disposals, alarm clock at two feet.

### THE FOLLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE

90	Subway, motorcycle, truck traffic, lawn mower
100	Garbage truck, chain saw, pneumatic drill
120	Rock band concert in front of speakers, thunderclap
140	Gunshot blast, jet plane
180	Rocket launching pad

Information courtesy of the Deafness Research Foundation.



## Safety precautions

### **⚠WARNING**

***To prevent injury or fire, take the following precautions:***

- Insert the unit all the way in until it is fully locked in place. Otherwise it may fall out of place when jolted.
- When extending the ignition, battery, or ground wires, make sure to use automotive-grade wires or other wires with a 0.75mm<sup>2</sup> (AWG 18) or more to prevent wire deterioration and damage to the wire coating.
- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- If the unit starts to emit smoke or strange smells, turn off the power immediately and consult your Kenwood dealer.
- Be careful not to drop the unit or subject it to strong shock.

The unit may break or crack because it contains glass parts.

- Do not touch the liquid crystal fluid if the LCD is damaged or broken due to shock. The liquid crystal fluid may be dangerous to your health or even fatal.

If the liquid crystal fluid from the LCD contacts your body or clothing, wash it off with soap immediately.

### **⚠CAUTION**

***To prevent damage to the machine, take the following precautions:***

- Make sure to ground the unit to a negative 12V DC power supply.
- Do not open the top or bottom covers of the unit.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- When replacing a fuse, only use a new one with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.
- To prevent a short circuit when replacing a fuse, first disconnect the wiring harness.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

### **NOTE**

- If you experience problems during installation, consult your Kenwood dealer.
- If the unit does not seem to be working right consult your Kenwood dealer.

### ***Cleaning the Unit***

If the front panel gets dirty, turn off the power and wipe the panel with a dry silicon cloth or soft cloth.

#### **⚠CAUTION**

Do not wipe the panel with a hard cloth or a cloth dampened by volatile solvents such as paint thinner and alcohol. They can scratch the surface of the panel and/or cause the indicator letters to peel off.

### ***Cleaning the Tape Head***

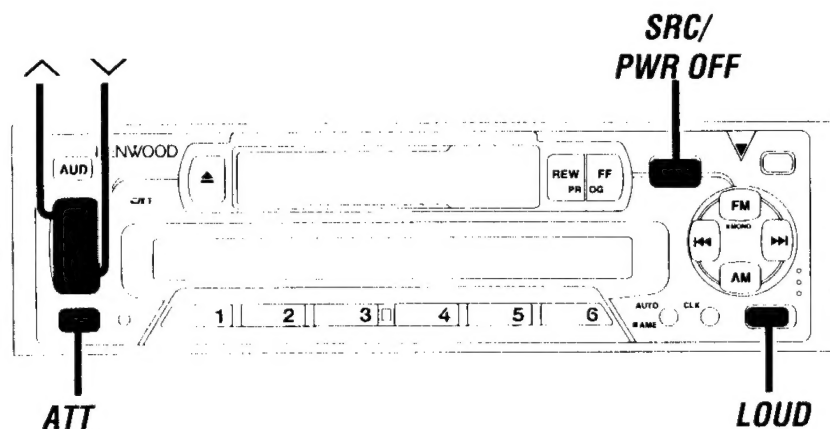
After you have listened to many cassettes over a long period of time, magnetic powder from the tapes and dust accumulates on the tape head, causing noise and a deterioration in sound quality. Clean the tape head using a cleaning tape or cleaning kit designed for use in car audio systems.

### ***Handling Cassette Tapes***

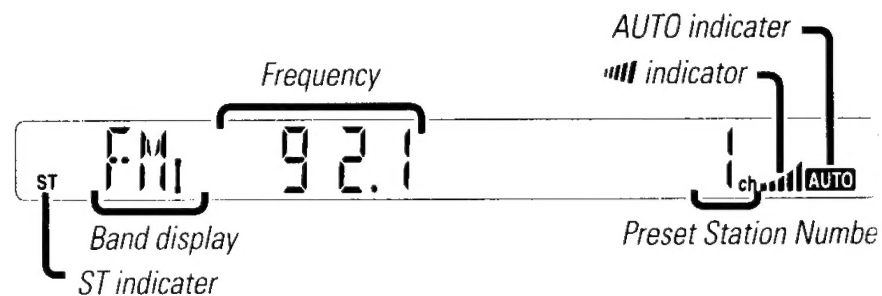
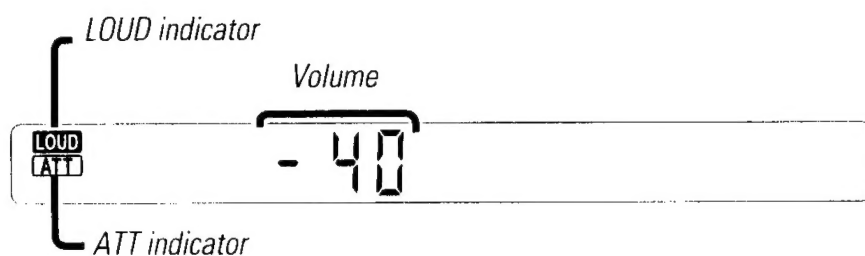
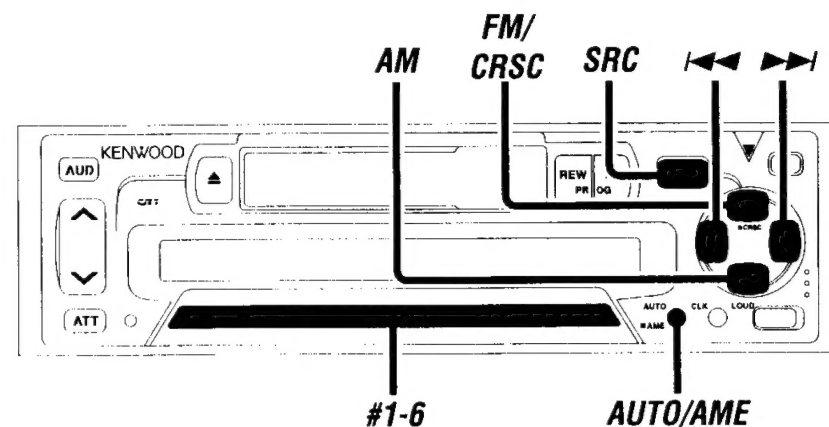
- Do not play a cassette whose tape has gone slack. In such a case, wind it tight using a pencil or the like in one of the spools. Playing slack cassette tapes can result in the tape tangling around the capstan and/or pinch rollers, causing trouble.
- Do not play a deformed cassette or one whose label is starting to come off, as it can cause the unit to malfunction.
- Do not leave tapes in hot places, such as on dashboards and other spots exposed to direct sunlight, or near heater outlets. They can deform the cassette.
- Avoid using extremely long cassette tapes, such as 100-minute-long tapes. Such tapes are very thin, and can tangle easily around the pinch rollers or other parts inside the unit, causing unit failure.
- Remove a cassette tape from the unit when not listening to it for a while. If you leave a tape in the unit too long, it may stick to the tape head and cause unit malfunction.

## Buttons and Display

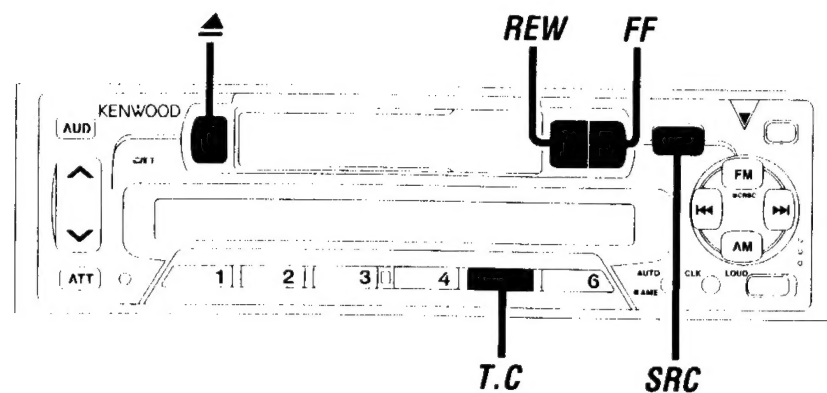
### Basic operations



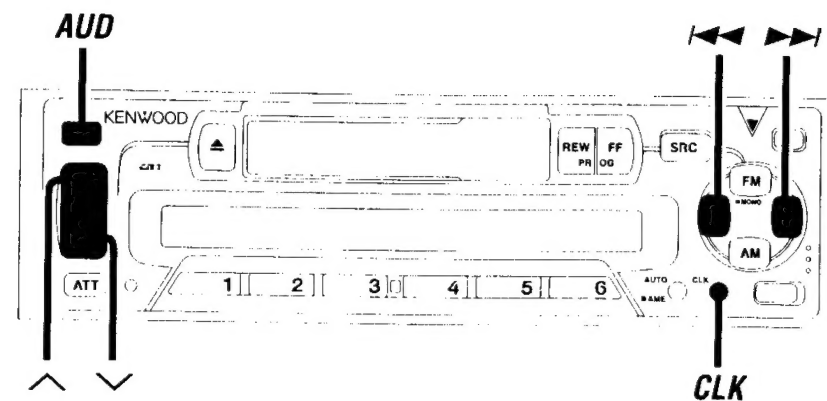
### Tuner features



## Cassette player features



## Other features



## Basic operations (See page 6)

### Power

#### Turning on the power:

Press the SRC (source) button.

#### NOTE

Turn the power on before carrying out the following procedures.

#### Turning off the power:

Press the PWR OFF button for at least one second.

#### Selecting standby mode:

Press the SRC button repeatedly and switch to "OFF."

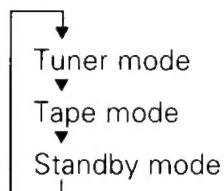
When "OFF" is displayed, the standby mode is activated.

The standby mode turns all functions off while leaving the power to the unit on. Use this mode when you want to have the display illuminated but don't want to listen to anything.

### Switching Modes

#### Switching Modes:

Each time you press the SRC (source) button, the mode switches as follows:



#### NOTE

The mode switches to the next mode from any mode which cannot be used.

### Volume

#### Increasing Volume:

Press the  $\wedge$  button to turn up the volume.

#### Decreasing Volume:

Press the  $\vee$  button to turn down the volume.

### Attenuator

**This function allows you to turn down the volume quickly.**

#### Turning Attenuator On/Off:

Press the ATT button to switch the attenuator on and off.

When the attenuator is on, the ATT indicator blinks.

When the attenuator is off, the volume returns to the original level.

#### NOTE

Turning the volume all the way down deactivates the attenuator function.

### Loudness

**This function amplifies low and high tones when the volume is turned down.**

**The LOUD indicator lights up when the loudness function is on.**

#### Turning Loudness On/Off:

Press the LOUD button to switch the loudness on and off.



## **Tuner features** (See page 6)

### **Tuning**

**You can choose between auto seek tuning of receivable frequencies and manual tuning.**

- 1** Press the SRC (source) button repeatedly to select the tuner mode. "TUnE" is displayed when the tuner mode has been selected.
- 2** Press either the FM or AM button to select the band. Each time you press the FM button, the band switches between FM1, FM2, and FM3 (which are used for groups of preset stations).  
Press the AM button to select the AM band.
- 3** Press the AUTO button to switch between auto seek tuning and manual tuning.  
The AUTO indicator lights up only when auto seek tuning is selected.
- 4**
  - Auto Seek Tuning  
Press the ►► button to seek higher frequencies.  
Press the ◀◀ button to seek lower frequencies.
  - Manual Tuning  
Press the ►► button to increase the frequency by one step.  
Press the ◀◀ button to decrease the frequency by one step.

#### **NOTE**

The ST indicator lights up when stereo broadcasts are being received.

### **Station Preset Memory**

**Store the frequency of a station. You can then recall that station with a single touch of a button.**

- 1** Select the band/station that you want to have stored.
- 2** Press the button (#1-6) that you want to use for the station, for at least two seconds.  
The button number blinks once in the display to indicate that the data has been stored.

#### **Recalling a Preset Station:**

Press the preset station button (#1-6) for the desired station. The number of the recalled station is displayed.

#### **NOTE**

You can store six stations in each of the FM1, FM2, FM3, and AM bands.

### **Auto Memory Entry**

**You can automatically store all the receivable frequencies in the band currently being listened to, and then recall them with the touch of a button later. This function is especially useful when you are travelling and do not know what stations are available. Up to six frequencies can be stored this way.**

- 1** Select the band for which you want to store stations.
- 2** Press the AME button for at least two seconds to start auto memory entry.  
The numbers of the preset station buttons are shown in order. When all the stations in a certain band are stored in the preset memory, the auto memory entry stops. The tuner then plays the last station received.

#### **Recalling a Preset Station:**

Press the preset station button (#1-6) for the desired station. The number of the recalled station is displayed.

## **Tuner features** (See page 6)

### **Clean Reception System Circuit (CRSC)**

Temporarily have reception switched from stereo to mono to reduce multi-path noise when listening to the FM station. The  indicator lights up when CRSC is on.

#### **Turning CRSC On/Off:**

Press the CRSC button for at least one second to turn the function on/off.

#### **NOTE**

Strong electrical fields (such as from power lines) may cause unstable sound quality when CRSC is turned on. In such a situation, turn it off.

## **Cassette player features** (See page 7)

### **Playing Cassette Tapes**

#### **Loading and Playing Cassettes:**

Load a cassette with the tape exposed on the right.

The tape starts playing automatically.

With side A facing up, the ► indicator lights up when side A is playing, and ◀ when side B is playing.

The ◀ ► indicator lights up while play is paused.

#### **Playing Cassettes Already Loaded:**

Press the SRC (source) button repeatedly to select the tape mode. "TAPE" is displayed when the tape mode has been selected.

#### **Listening to the other side:**

Press the FF button and REW button at the same time.

Tape play switches to the other side.

#### **Stopping and Ejecting Cassettes:**

Press the ▲ button.

The tape stops playing and the cassette ejects.

#### **NOTE**

Remove a cassette from the unit when not listening to it for a while. If you leave it in the unit too long, the tape may stick to the tape head and cause unit malfunction.

## **Fast Forwarding and Rewinding Cassette Tapes**

### ***Fast Forwarding Tapes:***

Press the FF button.

The tape indicator blinks in the direction of the tape as it is being fast forwarded.

If the REW button is pressed, normal tape will begin.

### ***Rewinding Tapes:***

Press the REW button.

The tape indicator blinks in the direction of the tape as it is being rewound.

If the FF button is pressed, normal tape play will begin.

## **Tuner Call**

**Switch automatically to the tuner while you are rewinding or fast forwarding the tape.**

### ***Turning Tuner Call On/Off:***

Press the T.C button to switch tuner call on and off.

The T.CALL indicator lights up when tuner call is turned on.

## Other features (See page 7)

### Audio Control Setting

Adjust various parameters of sound quality.

- 1 Press the AUD button to enter the control mode.  
Each time the AUD button is pressed, the adjustment mode display changes as follows:

► Bass ► Treble ► Balance ► Fader ► Volume

If you do not move to step 2 in five seconds, the unit will switch back to the volume adjustment mode (that is the normal mode).

**NOTE** Source tone memory

Each source (tape, FM, AM and disc changer) has its own memory in which to store the bass and treble tone settings. The settings made for a particular source are recalled automatically whenever you use that source (for example, FM mode uses the tone settings made for FM, AM for AM, etc.).

- 2 Press the  $\vee/\wedge$  buttons to adjust the mode shown in the display.  
Use the following table as a guide for adjusting the settings in each mode.

Adjustment mode (Display)	Operation of Audio control button	
	$\vee$ button	$\wedge$ button
Bass ("BAS")	Bass decreased.	Bass increased.
Treble ("TRE")	Treble decreased.	Treble increased.
Balance ("BL")	Left channel emphasized.	Right channel emphasized.
Fader ("FD")	Rear channel increased.	Front channel increased.

### Clock Display

Display the time.

**Switching to Time Display:**

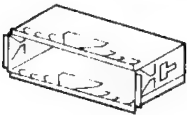






Keep pressing the CLK button until the clock is displayed.

### Adjusting Time

Adjust the time.

- 1 When the time is not displayed, first press the CLK button to display the time.
- 2 When holding down the CLK button, press the  $\blacktriangleleft$  or  $\blacktriangleright$  button to adjust the time.  
The  $\blacktriangleleft$  button adjusts the hour and the  $\blacktriangleright$  button adjusts the minutes.

## Accessories

	External view	Number of items
①		.....1
②		.....1
③		.....1
④		.....2
⑤		.....1
⑥		.....4
⑦		.....4

### ⚠CAUTION

Do not use any accessories other than those provided with your unit. If you use other accessories, you may damage the unit.

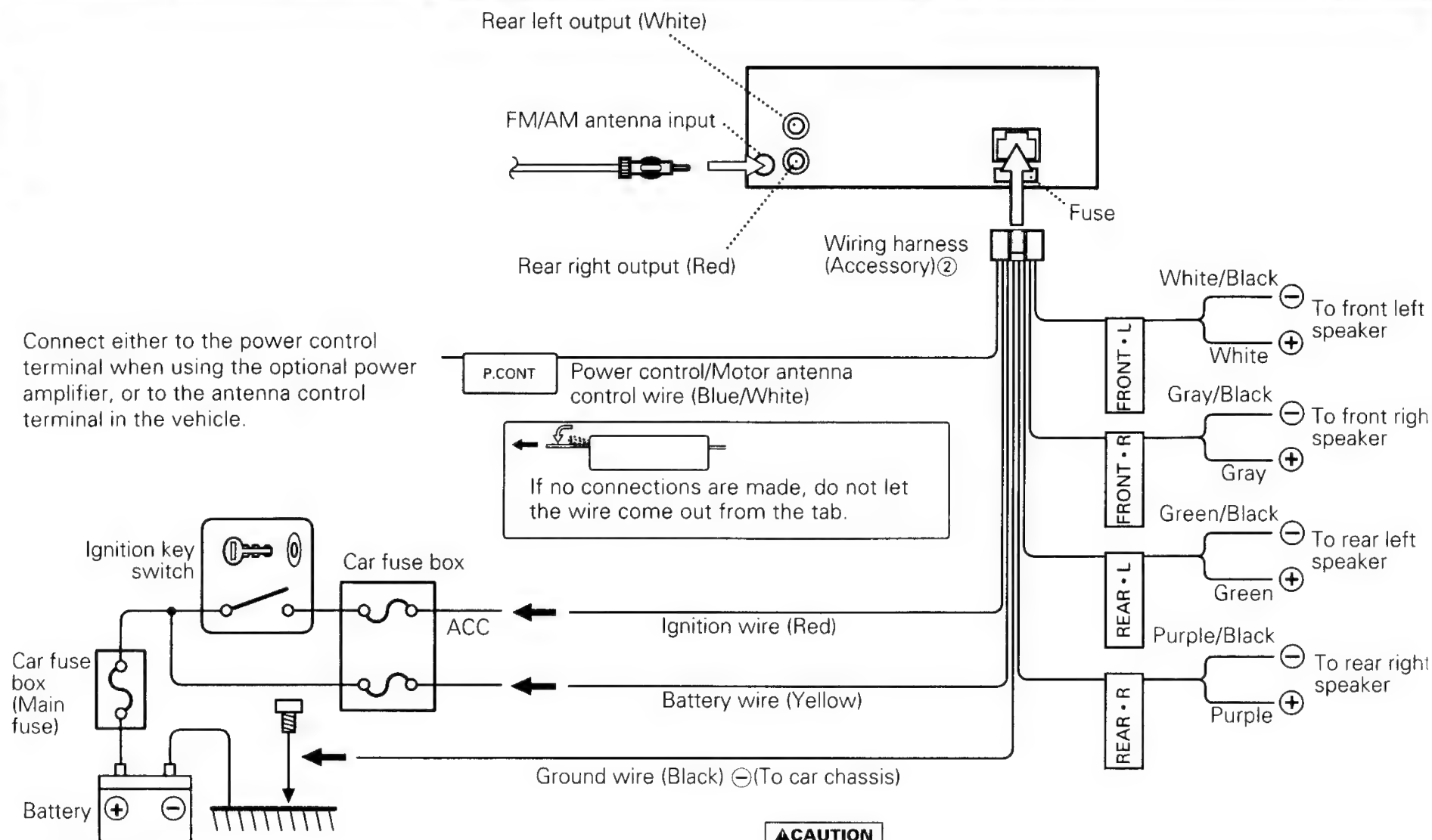
## Installation Procedure

1. To prevent a short circuit, remove the key from the ignition and disconnect the  $\ominus$  battery.
2. Make the proper input and output wire connections for each unit.
3. Connect the speaker wires of the wiring harness.
4. Connect the wiring harness wires in the following order: ground, battery, ignition.
5. Connect the wiring harness connector to the unit.
6. Install the unit in your car.
7. Reconnect the  $\ominus$  battery.

### ⚠CAUTION

- If your car's ignition does not have an ACC position, connect the ignition wires to a power source that can be turned on and off with the ignition key. If you connect the ignition wire to a power source with a constant voltage supply, as with battery wires, the battery may die.
- If the fuse blows, first make sure the wires aren't touching to cause a short circuit, then replace the old fuse with one with the same rating.
- Do not let unconnected wires or terminals touch metal on the car or anything else conducting electricity. To prevent a short circuit, do not remove the caps on the ends of the unconnected wires or the terminals.
- Connect the speaker wires correctly to the terminals to which they correspond. The unit may be damaged or fail to work if you share the  $\ominus$  wires or ground them to any metal part in the car.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Insulate unconnected wires with vinyl tape or other similar material.

# Connecting Wires to Terminals



## ⚠ WARNING

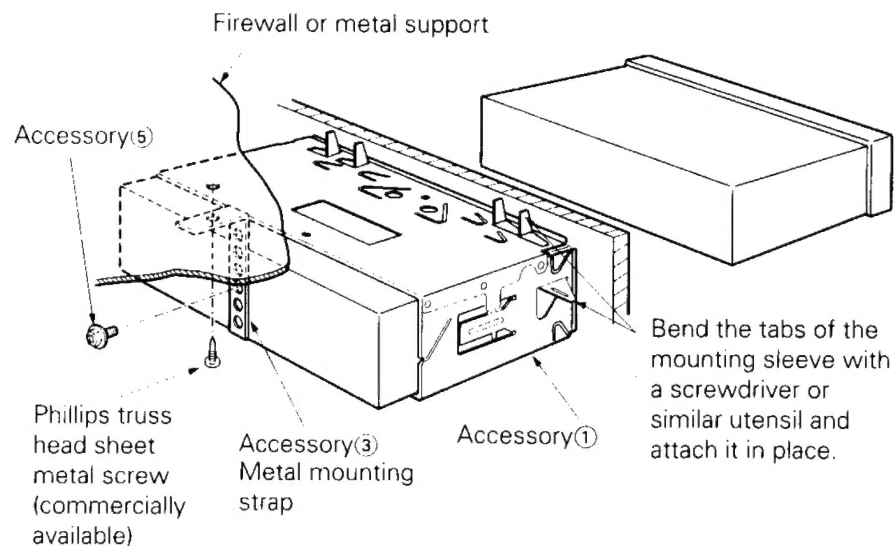
If you connect the ignition wire (red) and the battery wire (yellow) to the car chassis (ground), you may cause a short circuit, that in turn may start a fire. Always connect those wires to the power source running through the fuse box.

## ⚠ CAUTION

When only two speakers are being connected to the system, connect the connectors either to both the front output terminals or to both the rear output terminals (do not mix front and rear). For example, if you connect the ⊕ connector of the left speaker to a front output terminal, do not connect the ⊖ connector to a rear output terminal.

## Installation

### ■ Installation

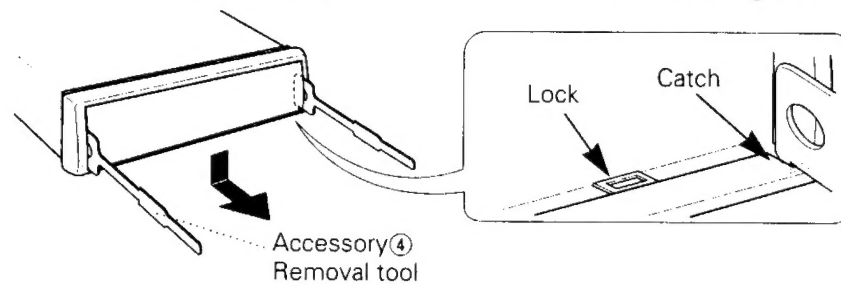


#### NOTE

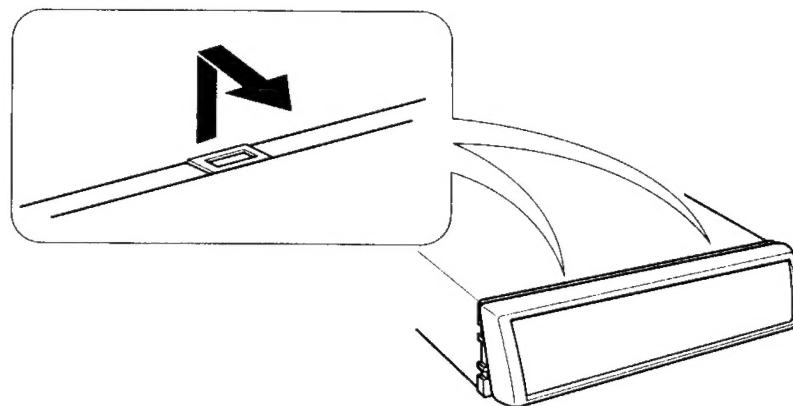
Make sure that the unit is installed securely in place. If the unit is unstable, it may malfunction (for example, the sound may skip).

### ■ Removing the hard rubber frame

- 1 Engage the catch pins on the removal tool and remove the two locks on the lower level.  
Lower the frame and pull it forward as shown in the figure.



- 2 When the lower level is removed, remove the upper two locations.



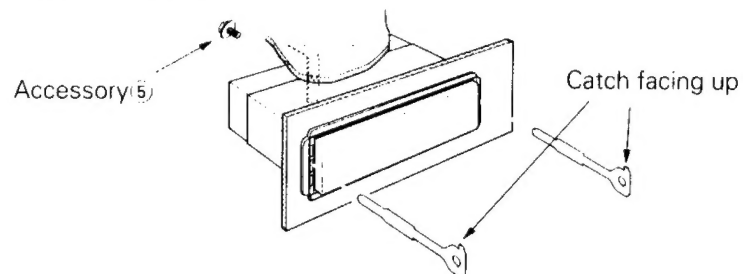
#### NOTE

The frame can be removed from the top side in the same manner.

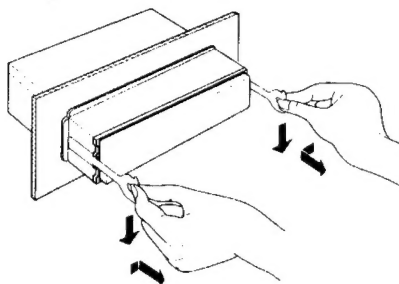
## Installation

### ■ Removing the Unit

- 1 Refer to the section "Removing the hard rubber frame" and then remove the hard rubber frame.
- 2 Remove the hex head machine screw with washer (M4x8) on the back panel.
- 3 Insert the two removal tools deeply into the slots on each side, as shown.



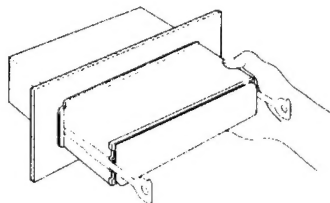
- 4 Lower the removal tool toward the bottom, and pull out the unit halfway while pressing towards the inside.



#### ⚠ CAUTION

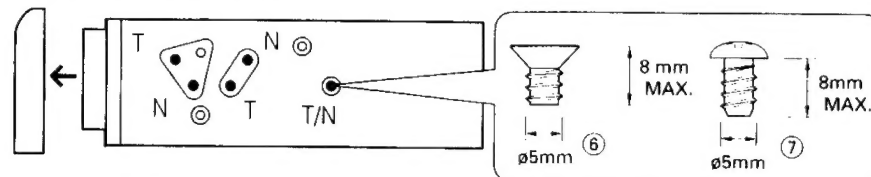
Be careful to avoid injury from the catch pins on the removal tool.

- 5 Pull the unit all the way out with your hands, being careful not to drop it.



### ■ Installing in Japanese-Made Cars

- 1 Refer to the section "Removing the hard rubber frame" and then remove the hard rubber frame.
- 2 Align the holes in the unit (two locations on each side) with the vehicle mounting bracket and secure the unit with the accessory screws.



T: Toyota cars  
N: Nissan cars

Accessory (6) ...for Nissan car  
Accessory (7) ...for Toyota car

#### ⚠ CAUTION

- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.
- Damage may occur if a screwdriver or similar tool is used with excessive force during the installations.



## Troubleshooting Guide

What might seem to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The power does not turn on.	The fuse has blown.	After checking for short circuits in the wires, replace the fuse with one with the same rating.
	No ACC position on vehicle ignition.	Connect the same wire to the ignition as the battery wire.
No sound can be heard, or the volume is low.	Attenuator is turned on.	Turn off Attenuator.
	The fader or balance settings are set all the way to one side.	Reset the fader or balance settings.
	The input/output wires or wiring harness are connected incorrectly.	Reconnect the input/output wires or the wiring harness correctly. See the section on "Connecting Wires to Terminals".
	The cassette tape is bad.	Try playing another cassette tape. If works fine, the first tape was bad.
	The cassette tape is not loaded properly.	If the tape does not start to play when a cassette tape is inserted, eject it and try inserting it again.
The sound quality is poor or distorted.	The tape head is dirty.	Clean the tape head, referring to the section on "Cleaning the tape head" (see p. 5).
	One of the speaker wires is being pinched by a screw in the car.	Check the speaker wiring.
	The speakers are not wired correctly.	Reconnect the speaker wires so that each output terminal is connected to a different speaker.
Radio reception is poor.	The car antenna is not extended.	Pull the antenna out all the way.
	The antenna control wire is not connected.	Connect the wire correctly, referring to the section on "Connecting Wires to Terminals".
The memory is erased when the ignition is turned off.	The battery wire has not been connected to the proper terminal.	Connect the wire correctly, referring to the section on "Connecting Wires to Terminals".

## Specifications

Specifications subject to change without notice.

### FM tuner section

Frequency range (200 kHz Space)	87.9 MHz - 107.9 MHz
Usable sensitivity (S/N = 30 dB)	9.3 dBf (0.8 $\mu$ V/75 $\Omega$ )
Quieting Sensitivity (S/N = 50 dB)	15.2 dBf (1.6 $\mu$ V/75 $\Omega$ )
Frequency response ( $\pm 3.0$ dB)	30 Hz - 15 kHz
Signal to Noise ratio (MONO)	75 dB
Selectivity ( $\pm 400$ kHz)	> 80 dB
Stereo separation (1 kHz)	40 dB

### AM tuner section

Frequency range (10 kHz space)	530 kHz - 1700 kHz
Usable sensitivity	28 dB (25 $\mu$ V)

### Cassette player section

Tape speed	4.76 cm/sec.
Wow & Flutter (WRMS)	0.12 %
Frequency response (120 $\mu$ s)	30 Hz - 14 kHz ( $\pm 3$ dB)
Separation (1 kHz)	43 dB
Signal to Noise ratio	54 dB

### Audio section

Maximum output power	
(KRC S300/S200)	25 W $\times 4$
(KRC S100)	20 W $\times 4$
Full bandwidth power (at less than 1% THD)	
(KRC S300/S200)	15 W $\times 4$
(KRC S100)	13 W $\times 4$
Tone action	
Bass	100 Hz $\pm 10$ dB
Treble	10 kHz $\pm 10$ dB
Preout level / Load	1800 mV / 10 k $\Omega$
Preout Impedance	$\leq 600 \Omega$

### General

Operating voltage	14.4 V (11 - 16 V allowable)
Current consumption	
(KRC S300/S200)	6.5 A at Rated power
(KRC S100)	6.0 A at Rated power
Installation size (W $\times$ H $\times$ D)	182 $\times$ 53 $\times$ 154 mm
	7 3/16 $\times$ 2-1/16 $\times$ 6-1/16"
Weight	1.4 kg
	3.1 lb